

#### 37993.txt SEQUENCE LISTING

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Ala Leu Glu	
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cac atg tac cac gac ctc ggg ctg gtc agg gac ttc agc atc aac cct	163
His Met Tyr His Asp Leu Gly Leu Val Arg Asp Phe Ser Ile Asn Pro Page 19	

	5					10					15					
			_			- 4										211
							ttc									211
	ınr	Leu	arg	Arg	•	Leu	Phe	Cys	vai		ASP	ASII	i y r	Arg		
20					25					30					35	
aac	ccc	ttc	cac	aac	ttc	cgg	cac	tgc	ttc	tgc	gtg	gcc	cag	atg	atg	259
Asn	Pro	Phe	His	Asn	Phe	۵rg	His	Cys	Pho	Cys	Val	Ala	Gln	мет	Met	
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tac	agc	atg	gtc	tgg	ctc	tgc	agt	ctc	cag	gag	aag	ttc	tca	caa	acg	307
Tyr	Ser	Met	val	Trp	Leu	Cys	Ser	Leu	Gln	Glu	Lys	Phe	Ser	Gln	Thr	
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Asp	Ile	Leu	Ile	Leu	Met	Thr	Ala	Ala	Ile	Cys	ніѕ	Asp	Leu	Asp	His	
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ccc	ggc	tac	aac	aac	acg	tac	cag	atc	aat	gcc	cgc	aca	gag	ctg	gcg	403
Pro	Gly	Tyr	Asn	Asn	Thr	Tyr	Gln	Ile	Asn	Ala	Arg	Thr	Glu	Leu	Ala	
	85					90					95					
gtc	cgc	tac	aat	gac	atc	tca	ccg	ctg	gag	aac	cac	cac	tgc	gcc	gtg	451
val	Arg	Tyr	Asn	Asp	Ile	Ser	Pro	Leu	Glu	Asn	His	His	Cys	Ala	val	
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gcc	ttc	cag	atc	ctc	gcc	gag	cct	gag	tgc	aac	atc	ttc	tcc	aac	atc	499
Ala	Phe	Gln	Ile	Leu	Ala	Glu	Pro	Glu	Cys	Asn	Ile	Phe	Ser	Asn	Ile	
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																_
cca																
		•				_	atc Ile	-	-		atg					547

145

140

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Glu	Lys	Met	Glu	Asn	Phe	Asp	Tyr	ser	Asn	Glu	Glu	His	Met	Thr	Leu	
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ctg	aag	atg	att	ttg	ata	aaa	tgc	tgt	gat	atc	tct	aac	gag	gtc	cgt	691
Leu	Lys	Met	Ile	Leu	Ile	Lys	Cys	Cys	Asp	Ile	Ser	Asn	Glu	val	Arg	
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cca	atg	gaa	gtc	gca	gag	cct	tgg	gtg	gac	tgt	tta	tta	gag	gaa	tat	739
Pro	Met	Glu	val	Ala	Glu	Pro	Тгр	٧a٦	Asp	Cys	Leu	Leu	Glu	Glu	Tyr	
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Phe	Met	Asp	Arg	Asp	Lys	٧al	Thr	Lys	Ala	Thr	Ala	Gln	Ile	Gly	Phe	
		230					235					240				
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Ile	Lys	Phe	val	Leu	Ile	Pro	Met	Phe	Glu	Thr	val	Thr	Lys	Leu	Phe	
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ccc	atg	gtt	gag	gag	atc	atg	ctg	cag	cca	ctt	tgg	gaa	tcc	cga	gat	931
Pro	Met	val	Glu	Glu	Ile	Met	Leu	Gln	Pro	Leu	Trp	Glu	Ser	Arg	Asp	
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cgc	tac	gag	gag	ctg	aag	cgg	ata	gat	gac	gcc	atg	aaa	gag	tta	cag	979
Arg	Tyr	Glu	Glu	Leu	Lys	Arg	Ile	Asp			Met	Lys	Glu	Leu	Gln	
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280 285 290

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Tyr Arg Asn Asn Pro Phe His Asn Phe Arg His Cys Phe Cys Val Ala 35 40 45

Gln	Met	Met	Tyr	Ser	Met		Trp	Leu	Cys	Ser		Gln	Glu	Lys	Phe
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Ser	Gln	Thr	Asp	Ile	Leu	Ile	Leu	Met	Thr	Ala	Ala	Ile	Cys	His	Asp
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Leu	Asp	His	Pro	Gly	Tyr	Asn	Asn	Thr	Tyr	Gln	Ile	Asn	Аlа	Arg	Thr
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Glu	Leu	Ala	val	Arg	Tyr	Asn	Asp	Ile	Ser	Pro	Leu	Glu	Asn	His	His
			100					105					110		
Cys	Ala	val	Ala	Phe	Gln	Ile	Leu	Ala	Glu	Pro	Glu	Cys	Asn	Ile	Phe
		115					120					125			
Ser	Asn	īle	Pro	Pro	Asp	Glv	Phe	LVS	Gln	Ile	Ara	Gln	Glv	Met	Ile
50.	130				, .эр	135	,	-,~	• • • • • • • • • • • • • • • • • • • •		140	•	,		
<b>-</b>		<b>-</b> 1-		.7.	<del>-</del>			47-	<b>A</b>		47.	c1	<b>*</b> 1.	Ma.	A
145	Leu	116	Leu	Ата	150	ASP	мет	АТА	Arg	155	АТА	GIU	тте	мес	160
Ser	Phe	Lys	Glu	Lys 165	Met	Glu	Asn	Phe	Asp 170	Tyr	Ser	Asn	Glu	Glu 175	His
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Met	Thr	Leu		Lys	Met	Ile	Leu		Lys	Cys	Cys	Asp		ser	Asn
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Glu	val	Arg	Pro	Met	Glu	val	Ala	Glu	Pro	Trp	val	Asp	Cys	Leu	Leu
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Glu	Glu	Tyr	Phe	Met	Gln	Ser	Asp	Arg	Glu	Lys	Ser	Glu	Gly	Leu	Pro
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val	Ala	Pro	Phe	Met	Asp	Arg	Asp	Lys		Thr e 23	Lys	Ala	Thr	Ala	Gln

225 230 235 240

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Lys Leu Phe Pro Met Val Glu Glu Ile Met Leu Gln Pro Leu Trp Glu 260 265 270

Ser Arg Asp Arg Tyr Glu Glu Leu Lys Arg Ile Asp Asp Ala Met Lys
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Met Gly Ser Gly Ser Ser Ser Tyr Arg Pro Lys Ala

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5

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Tyr	Cys	Asn	ser	Ser	Asp	Ile	Met	Asp	Leu	Phe	Cys	Ile	Ala	Thr	Gly	
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gtc	tcc	atc	gac	ccc	acc	atg	ссс	gcg	aat	tca	gaa	cgc	act	ccg	tac	301
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Lys	٧a٦	Arg	Pro	٧a٦	Ala	Ile	Lys	Gln	Leu	Ser	Glu	Arg	Glu	Glu	Leu	
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Ile	Gln	Ser	val	Leu	Ala	Gln	٧a٦	Ala	Glu	Gln	Phe	Ser	Arg	Ala	Phe	
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Lys	Ile	Asn	Glu	Leu	Lys	Ala	Glu	٧a٦	Ala	Asn	His	Leu	Аlа	val	Leu	
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	_	_	_											Arg		
	•		·		•			-		e 25				_		

			145				150				155	
agc agg Ser Arg	Thr A											589
aag ttg Lys Leu												637
tct cca Ser Pro 190	Glu <sup>-</sup>											685
ctt tgg Leu Trp 205												733
gac ctc Asp Leu		Leu		agg								781
agg tgg Arg Trp	Leu F	ttc Phe	tgc			Asn	tac			Pro	ttc	829
aac ttc Asn Phe	cgg (											877
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280

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275

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								gat								1213
	Ald	Arg	HIS	Ald		11e	мес	Asp	Sei		Lys	Giu	Lys	мес		
365					370					375					380	
22+	+++	asc	tac	anc	226	aza	aza	cac	ato	acc	cta	cta	aan	ato	att	1261
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•			_		_			Asn		_	_		_	_	_	
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Ala	Glu	Pro	Тгр	val	Asp	Cys	Leu	Leu			Tyr	Phe	мet	Gln	Ser	
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<212> PRT

<213> Homo sapiens

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Ser Asp Ile Met Asp Leu Phe Cys Ile Ala Thr Gly Leu Pro Arg Asn

Thr Thr Ile Ser Leu Leu Thr Thr Asp Asp Ala Met Val Ser Ile Asp

Pro Thr Met Pro Ala Asn Ser Glu Arg Thr Pro Tyr Lys Val Arg Pro

Val Ala Ile Lys Gln Leu Ser Glu Arg Glu Glu Leu Ile Gln Ser Val

Leu Ala Gln Val Ala Glu Gln Phe Ser Arg Ala Phe Lys Ile Asn Glu

Leu Lys Ala Glu Val Ala Asn His Leu Ala Val Leu Glu Lys Arg Val

Page 29

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Cys	Pro	Cys	Lys	Туг 165	Ser	Phe	Leu	Asp	Asn 170	His	Lys	Lys	Leu	Thr 175	Pro
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Asn	Glu 210	Met	Leu	Ser	Cys	Leu 215	Glu	His	Met	Tyr	ніs 220	Asp	Leu	Gly	Leu
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Ala	G1u 370	Ile	Met	Asp	Ser	Phe 375	Lys	Glu	Lys	Met	Glu 380	Asn	Phe	Asp	Tyr
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Lys	Ala 450	Thr	Ala	Gln	Ile	Gly 455	Phe	Ile	Lys	Phe	val 460	Leu	Ile	Pro	Met
Phe 465	Glu	Thr	Val	Thr	Lys 470	Leu	Phe	Pro	Met	val 475	Glu	Glu	Ile	Met	Leu 480
Gln	Pro	Leu	Тгр	Glu	Ser	Arg	Asp	Arg		Glu e 31	Glu	Leu	Lys	Arg	Ile

485

490

495

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Cys Asn Ser Ser Asp Ile Met Asp Leu Phe Cys Ile Ala Thr Gly Leu

20 25 30

cct cgg aac acg acc atc tcc ctg ctg acc acc gac gac gcc atg gtc 145 Pro Arg Asn Thr Thr Ile Ser Leu Leu Thr Thr Asp Asp Ala Met Val

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gtg	aga	cct	gtg	gcc	atc	aag	caa	ctc	tcc	gct	gat	gtc	gag	gac	aag	241
٧a٦	Arg	Pro	٧a٦	Ala	Ile	Lys	Gln	Leu	Ser	Ala	Asp	va1	Glu	Asp	Lys	
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_			_	_			tct	_				_				289
Arg	Thr	Thr	Ser	•	Gly	Gln	Ser	Ala		Arg	Pro	Leu	Arg	•	Arg	
				85					90					95		
																227
	_			_		_	ccc		-							337
Arg	vaı	Val	-	Leu	Glu	GIn	Pro	_	Arg	Glu	GIY	АІА		Glu	Ser	
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GTY	GIII	115	Giu	PIO	Arg	PIO	120	Giu	PIU	GIII	GTY	125	ıyı	GIII	Giu	
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Leu	Glu	Gly	Leu	Lys	٧a٦	٧a٦	Glu	Ile			Cys	Lys	Ser	Asp	Ile	
									Page	e 33						

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ttc tgc gtg gcc cag atg atg tac agc atg gtc tgg ctc tgc agt ctc

Phe Cys Val Ala Gln Met Met Tyr Ser Met Val Trp Leu Cys Ser Leu

cag	gag	aag	ttc	tca	caa	acg	gat	atc	ctg	atc	cta	atg	aca	gcg	gcc	1009
Gln	Glu	Lys	Phe	Ser	Gln	Thr	Asp	Ile	Leu	Ile	Leu	Met	Thr	Ala	Ala	
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Ile	Cys	His	Asp	Leu	Asp	His	Pro	Gly	Tyr	Asn	Asn	Thr	Tyr	Gln	Ile	
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aat	gcc	cgc	aca	gag	ctg	gcg	gtc	cgc	tac	aat	gac	atc	tca	ccg	ctg	1105
Asn	Аlа	Arg	Thr	Glu	Leu	Ala	val	Arg	Tyr	Asn	Asp	Ile	Ser	Pro	Leu	
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Glu	Asn	His	His	Cys	Ala	val	Ala	Phe	Gln	Ile	Leu	Ala	Glu	Pro	Glu	
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tgc	aac	atc	ttc	tcc	aac	atc	cca	cct	gat	ggg	ttc	aag	cag	atc	cga	1201
Cys	Asn	Ile	Phe	Ser	Asn	Ile	Pro	Pro	Asp	Gly	Phe	Lys	Gln	Ile	Arg	
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gat	atc	tct	aac	gag	gtc	cgt	cca	atg	gaa	gtc	gca	gag	cct	tgg	gtg	1393
Asp	Ile	Ser	Asn	Glu	val	Arg	Pro	Met			Ala	Glu	Pro	Тгр	val	
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gac	tgt	tta	tta	gag	gaa	tat	ttt	atg	cag	agc	gac	cgt	gag	aag	tca	1441
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Ala	Thr	Ala	Gln	Ile	Gly	Phe	Ile	Lys	Phe	val	Leu	Ile	Pro	Met	Phe	
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Glu	Thr	val	Thr	Lys	Leu	Phe	Pro	Met	val	Glu	Glu	Ile	Met	Leu	Gln	
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gac	gcc	atg	aaa	gag	tta	cag	aag	aag	act	gac	agc	ttg	acg	tct	ggg	1681
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	Thr															
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									-					-		
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Ser Ile Asp Pro Thr Met Pro Ala Asn Ser Glu Arg Thr Pro Tyr Lys
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Val Arg Pro Val Ala Ile Lys Gln Leu Ser Ala Asp Val Glu Asp Lys
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Arg Thr Thr Ser Arg Gly Gln Ser Ala Glu Arg Pro Leu Arg Asp Arg

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Arg Val Val Gly Leu Glu Gln Pro Arg Glu Gly Ala Phe Glu Ser Page 37

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Lys Ala Glu	Val Ala Asn H 165		Val Leu Glu Lys 170	Arg Val Glu 175
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Glu Ala Leu	Arg Lys Pro 7 245		Val Trp Leu Trp 250	Glu Pro Asn 255
Glu Met Leu	Ser Cys Leu 0 260	Glu His Met 1 265	Tyr His Asp Leu	Gly Leu Val 270
Arg Asp Phe 275	Ser Ile Asn F	280	Leu Arg Arg Trp 285 Page 38	Leu Phe Cys

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Glu Thr Val Thr Lys Leu Phe Pro Met Val Glu Glu Ile Met Leu Gli 515 520 525	ר
Pro Leu Trp Glu Ser Arg Asp Arg Tyr Glu Glu Leu Lys Arg Ile Asp 530 535 540	Э
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	ı Glu L		gcc aga Ala Arg 155	-			n Cys				655
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			tac ctg Tyr Leu								751
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			atg tac Met Tyr								847
	e Asn P		acc ctc Thr Leu 235			Leu Pho	e Cys				895

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Phe	Ser	Gln	Thr	Asp	Ile	Leu	IJе	Leu	Met	Thr	Ala	Ala	Ile	Cys	His	
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60

Thr Thr Ile Ser Leu Leu Thr Thr Asp Asp Ala Met Val Ser Ile Asp

55

50

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Ile Asn Ala Ar 305	rg Thr Glu Leu 310	Ala Val Arg Tyr As 315	n Asp Ile Ser Pro 320
Leu Glu Asn Hi	is His Cys Ala 325	Val Ala Phe Gln Il 330	e Leu Ala Glu Pro 335
Glu Cys Asn Il		Ile Pro Pro Asp Gl 345	y Phe Lys Gln Ile 350
Arg Gln Gly Me		Ile Leu Ala Thr As 360	p Met Ala Arg His 365
Ala Glu Ile Me 370	et Asp Ser Phe 375	Lys Glu Lys Met Gl 38	
Ser Asn Glu Gl 385	lu His Met Thr 390	Leu Leu Lys Met I <sup>1</sup> 395	e Leu Ile Lys Cys 400
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